

PHILOSOPHY: THE FEASIBILITY AND RELEVANCE OF PREDICTING THE FUTURE OF HUMANITY

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Abstract

Interests in the future of humanity and attempts to predict its outcome are as old as humanity itself. Many religions, especially the three Abrahamic religions: Christianity, Islam and Judaism have their teachings of where human destinies are headed and most of their devotees are made up of people who want to share in these future destinies. Some scholars, including renowned philosophers such as Kant, Hegel and Marx have also speculated on the future of mankind. However, in recent years, following the astonishing breakthroughs in science and technology, this interest in the future of mankind has skyrocketed and attracted special attentions and interventions from scholars. Thus, questions are being raised about what the future holds for man in the age of biotechnology and artificial intelligence. There are also the issues of global warming, nuclear and biological weapons and the threats these pose to the continuity of life on earth. Scholars have also discussed how governance and religion can be a force for good or evil in the age of science and technology. While scholars who pursue predictability believe that human future can be predicted, there also, another group of scholars, who believed that any attempt to predict human future is futile and therefore bound to fail. Their argument usually is that there is not enough information to stand on and predict human future. Using the documentary method of data collection and conceptual method of data analysis, this study interrogates the feasibility and relevance of predictability in relation to the future of humankind. The study argues that while attempts to accurately predict human future is not feasible because the data needed for such accuracy is not and will not likely be available in the foreseeable future, probabilistic predictions which enable humanity to plan for contingencies is feasible. What this means is that prediction is a matter of degree determined by the amount of information available to the predictor. The study thus, concludes that in stead of doing away with predictability, efforts should be channeled towards understanding the contingent nature of predictions and the need to adapt and readapt society to these contingencies because prediction is not just a part and parcel of the human condition but that it is necessary for navigating the unpredictable conditions that humanity finds itself, especially in the age of science and technology.

Keywords: Philosophy, Predictability, Humanity, Artificial Intelligence, Science and Technology, Future, Religion.

Introduction

The quest to know the future of humanity has been one of the oldest quests of mankind. More pressing issues that philosophy raises are what inform the object of our knowledge or consciousness. How do our senses or how does the mind generated what we know?. in what form is our knowledge generated?. How do we communicate what we claim to know? And even understand what we express? It is fact that man is a being in language, yet prior to language formation man had always interacted with one another in some pattern or form. (Mbah, Utobo & Chukwu, 2024).

In fact, there are strong indications that ancient religions started as a response to mankind's obsession with the future, for humanity has practically worshipped anything that offers him hope of knowing what the future holds for him (Ogugua, 2009). A typical example of this was what transpired between King Saul of Israel and the Witch of Endor, recorded 1Sam 28. Rejected by

God and faced with the prospect of death, Saul sneaked under the cover of darkness to visit the Witch of Endor, (a member of a group he had banished from Israel) to gain insight about his fate and that of his nation in an impending war between Israel and the Philistine. The Witch called up the ghost of the Prophet Samuel who foretold Saul's imminent sad end.

In our own time, religious leaders who arrogate to themselves the power of knowledge of the future enjoy some sort of cult followership. Their churches, prayer centers, mosques and shrines, as the case maybe, are usually jam-packed as worshippers' throng on each other in the hope that the man or woman of God will tell them what the future holds for them. In fact, there is serious indication that mankind's quest for the future is genetically wired and connected with the fears of the unknown, and uncertainty (Ogugua, 2009).

Although, mankind's interest in the future is as old as humanity itself, this interest assumed a feverish dimension in recent years following the stupendous breakthroughs and astonishing accomplishments in the field of science and technology. Anyone born before the mid-1980s, remembering the world before the internet, will surely appreciate technology's power to uproot human lives. There is no doubt that advances in technology and automation will keep on transforming human lives. Soon the devices use by human beings will respond to their voices, performing many routine chores as human beings talk with them. The testing of self-driven cars and of drones delivering packages have already reached an advanced state. The virtual world will become ever more developed and sophisticated, offering humankind yet more unimaginable ways to experience reality. Meanwhile humanity's dabbling with and control over nature will continue to know no bounds in the years to come, thereby helping societies more effectively combat illness, disease, infertility and ageing (Tylor, 2017). Regrettably, scientific advancements do not only have the potentials of impacting positively but have also impacted negatively on humanity. Climate change, atomic and chemical weapons, deadly poisons, and viruses, among others, owe majorly to science and technology.

Apart from science and technology, religion and government are two other human activities that have the power to impact and determine the outcome of mankind's future. This is because of the enormous influence of religion on government and the influence of government on policies that drive technological innovations. These two activities have determined the nature, direction and scope of human civilizations in the past and are likely to do more in the future because of the increasing impacts of science and technology on government, religion and in the overall organization of the human society. These dynamics have led to heightened interest and scholarly interventions on the future of mankind. These interventions themselves have led to the bifurcations of scholars into two categories with one group arguing that predicting human future is quite feasible and relevant and the other group countering this claim by insisting that predictability is impossible and therefore irrelevant as well as a waste of time.

Therefore, this study deploys the philosophical tool of conceptual analysis to interrogate these two theories. It discovers that while accurate prediction of the exact future of humankind is a scientific impossibility, it is both possible and relevant to predict the future to certain degree of reliability that would help man to plan and navigate through the dynamisms and uncertainties of life. The study therefore recommends investing more energy in enhancing the accuracy of

scientific predictability and the ability of society in adapting, readapting and remaining resilience especially when predictions fail.

Apart from this introduction, the study is divided into three sections. The first section will explore the meaning of “the future of humanity.” The intention is to define and circumscribe the concept the way it is used in this study. Section two will x-ray the arguments on the viability and justification of predicting the future of humanity especially in the face of mounting opposition that argue that such endeavor is wasteful because the future is and will always be unpredictable. Finally, the last section makes a case both for the feasibility and relevance of predictability recommending on the need to enhance human power and instrument of predictability as well as expanding society’s ability to deal with contingencies that can emanate from the failure of predictions

Conceptual Clarifications

Philosophy

Perhaps the only thing academic philosophers agree on is that philosophy is difficult to define and hence has no generally accepted definition. Based on this consensus, anyone who is as unfortunate as to be confronted with the task of defining philosophy, as we are in this context, must determine for himself or herself how to go about the task. Scholars often pursue this goal using either of or both of two methods: define philosophy either etymologically or adopt any of the many definitions offered by professional philosophers or define it both etymologically and professionally. For our purpose here the second approach is adopted. In order words, the concept will be defined both etymologically and professionally.

Before going into the etymological definition, it will be good to look briefly at the historical origin of the concept. The word, Philosophy was coined by Pythagoras around the 6th Century B.C. not as a discipline, but merely expressing the general tendency in man to seek to know things and their causes. When Leon the tyrant of Phlius asked him who he was, Pythagoras was said to have replied, “A philosopher” or a lover of wisdom in the sense that he regarded every aspect of reality with thoughtful attention for the purpose of achieving a clearer and more comprehensive understanding. He went ahead to compare life to the Great Olympic Games where some went to compete for prizes and others went with wares to sell. In his assessment, the best among them all were those who went as spectators, since their interest in the games is simply to relax and enjoy it. He compared the situation with the situation in real life where some grow up with servile natures, and others are greedy for fame and gain. Unlike both classes of people, the philosopher seeks for truth. The philosopher’s superiority over these other classes of people lies in his or her constant disposition to spurn fame and profit and go for the truth. Wisdom consists in the constant and unwavering disposition to seek the truth. Philosophy includes both the seeking and the wisdom that is sought (Onyeocha, 1996, pp. 8-9).

Etymologically, the word philosophy come from the Greek words “philos”, “philia”, “philien”, which is translated as “friend”, “love”, “to love” and “sophia”, meaning “wisdom.” “Philia” refers to such concepts as “friendliness”, “affection”, or any such concept conducive to the establishment of friendship between persons. “Sophia” as understood by Aristotle refers to the

highest intellectual and especially philosophical excellence of which the human mind is capable and which is the result of studying nature for its own sake. In this sense it is translated as “theoretical wisdom” (p. 8). The two concepts of “philia” and “sophia” would combine to form “philosophia” or “philosophy” which one can literally translate as love of wisdom. A Philosopher then is a wise man or a lover of wisdom. Loving something as used here is the same as wanting it because the Greeks believed that man cannot attain complete wisdom, he can only love or seek wisdom and grow in his knowledge of it. Also, wisdom as understood by the Greeks is the practical knowledge that enables one to adapt to all situations. Thus, philosophy gives humans wisdom about the universe and its implications with oneself and those around it. This etymological definition reveals the subject matter of Philosophy: All things naturally knowable. In this light, Philosophy studies reality in its deepest causes and reasons.

If one should analyse all the definitions of philosophy by professional philosophers, there are two trends noticeable: some emphasize the critical aspect of philosophy while others lay emphasis on its synthetic aspect. Some examples of these two types of definitions of philosophy are as follows:

(a) Philosophy is a critical method of approaching experience. Examples of this type of definitions are as follows (Rehman, 2021)

- "Philosophy is essentially a spirit or method of approaching experience rather than a body of conclusions about experience." (Edgar S. Brightman)
- "It is not the specific content of the conclusions, but the spirit and method by which they are reached, which entitles them to be described as philosophical..." (Clifford Barrat)
- "Were I limited to one line for my answer to it, I should say that philosophy is general theory of criticism." (C.J. Ducasse).

(b) Philosophy is comprehensive synthetic science The following definitions of philosophy emphasize its synthetic aspect:

- "Philosophy, like science, consists of theories of insights arrived at as a result of systematic reflection." (Joseph A. Leighton)
- "Philosophy is concerned with everything as a universal science." (Herbert Spencer)
- "Our subject is a collection of science, such as theory of knowledge, logic, cosmology, ethics and aesthetics, as well as a unified survey." (Roy Wood Sellars)

The above definitions of philosophy show that while some philosophers have mainly emphasized critical philosophy, others have defined it as a synthetic discipline. In fact, these two views are one-sided because philosophy is both critical as well as synthetic. Each approach must be kept in mind because the two approaches summarize the different definitions and approaches to the meaning of philosophy.

These two senses of philosophy- ‘having’ and ‘doing’ cannot be treated independently of each other, for if we did not have a philosophy in the synthetic sense, then we could not do a philosophy in the critical, reflective and academic sense. Therefore, philosophy can be defined as the attempt to clarify and if possible to answer, a range of puzzling and fundamental questions which arise when, in a general and inclusive way, we try to understand ourselves and the universe we inhabit. Among many other things, these questions concern existence and reality, knowledge and belief, reason and reasoning, truth, meaning, and value both ethical and aesthetic. The questions themselves are of the form: What is reality?, what kind of things ultimately exist?, what is knowledge and how do we come by it?, how can we be sure that our claims to knowledge are not in some systematic way mistaken? In other words is there any genuine knowledge we can rely on or must we simply depend on opinions and guesses?, what are the canons of correct reasoning?, what is morally the right way to live and act and why? Etc. In summary, philosophy as a discipline makes use of logical reasoning to verify issue and problems in order to give them their right and appropriate weight. Also it agrees with the modern sciences that there is no absolute and certain conclusion such that is immune to further future investigation and corrections.

Scientific Prediction

Prediction is one of the three goals of science identified by Ndianefoo (2016, pp. 9-17). The other two goals being explanation and description. He describes scientific prediction as “a theory’s implications or entailment without regard for temporal constraints, as when one says a successful theory of cosmology predicts the existence of cosmic background radiation at all times” (pp. 15-16). In other words, to predict is to make a claim about matters that are not already known, not necessarily about events that have not yet transpired. Ndianefoo’s contention here appears to be that scientific prediction is not about saying what will happen before it occurs but in identifying the causal conditions that when present or absent would make a theory verified or falsified. He identifies the mistake many people make in associating scientific predictions with temporality.

Whether one predicts rainfall, recessions, or racetrack winners, predicting an event or state of affairs often, perhaps even typically, involves saying that it will happen before it occurs, and this common association is presumably responsible for the idea that predictions must be about the future. But in scientific contexts one often characterizes a theory’s predictions as its implications or entailments without regard for temporal constraints.... (p. 15)

It is in this light that one will easily appreciate Karl Raimund Popper’s (1963) thesis that a genuine science requires theories that rule out some states of affairs and makes risky predictions about unknown cases, exposing themselves to serious possibilities of refutation. In empirical science therefore, the requirement of shared epistemic access to success or failure of a prediction means that the fate of a prediction is typically decided in the court of experiment and observation.

The importance of Popper’s and Ndianefoo’s clarification here can be made clearer if a brief distinction is drawn between scientific prediction and prophecy. Whereas scientific prediction is a theory’s implication or entailment without reference for temporal constraints, prophecy involves

saying that something will happen before it occurs. Therefore, while scientific prediction and prophecy are different in that the latter solely emphasize temporality and the former not constrained by time, the two are related in that they both reveal the occurrence of events which people are not aware of. In other words, both involves predictions, whether temporal or non-temporal. However, the major difference between the two is the authority each relies on for its claims. Prophets rely on the authority of their God or gods to make their predictions, such that when prophecy fails, it is either the prophet did not get the information from God or the gods and is therefore a false prophet or God/the gods do not have power to carry out what they predicted and are therefore false God/gods. Contrarily, scientists make evidence based predictions, that is, they rely on the authority of available evidence to predict both temporal and non-temporal occurrences such that when a scientific prediction fails it is also the case that the scientist gets his evidence wrong. Therefore, the arguments on predictability is whether scientists ever or will ever have enough evidence to predict human future.

Future of Humanity

In a sense, the future of humanity includes everything that will ever happen to any and every human being, including what this researcher will take for breakfast after writing this paragraph and all the scientific discoveries that will be made before the year, 2024 runs out. In this sense, it is hardly reasonable to think of the future of humanity as a topic: it is too big and too diverse to be addressed as a whole in a single essay or even 100-volume book series (Bostrom, 2009). Nevertheless, it can be made into a topic by way of abstraction. Abstracting from details and short-term fluctuations and developments that affect only some limited aspect of the lives of human beings. In this context, a discussion about the future of humanity is about how the important fundamental features of the human condition may change or remain constant in the long run.

However, by this way of abstraction, the question can be asked, what features of the human condition are fundamental and important and who is in the position to decide these features? On this, there can be reasonable disagreement, nonetheless, some features qualify by almost any standard. For example, whether and when Earth-originating life will go extinct, whether human biology will be fundamentally transformed to make human beings immortal, whether machine intelligence will surpass biological intelligence and what the consequence would be, whether population size will explode, and whether quality of life will radically improve or deteriorate: these are all important fundamental questions about the future of humanity. Therefore, according to Igwe and Udoh (2022) the future of humanity consists of the type of events or happenings, or the kind of life humans will lead in the time to come. As such, a deliberation on the future of humanity is a discourse on how human life will be in time to come about the significant ingredient of the human condition.

These notable constituents of the human condition include the impact of science and technology on humanity, the influence of religion and culture on humanity, human interference in nature, genetic engineering, human mortality and immortality, nuclear war, climate change (global warming), system of government, and global peace among others (p. 90)

Fundamentally, this is the way the future of humanity will be understood and used in this essay.

Philosophy and the Feasibility Relevance of Predicting the Future of Humanity

As already observed, traditionally, the future of humanity has been a topic for theology. All the major religions have teachings about the ultimate destiny of humankind or the end of the world. Eschatological themes have also been explored by big-name philosophers such as Hegel, Kant, and Marx. However, predicting human future has often served as a projection for human hopes and fears and this has made a reasonable number of scholars to question the justification or usefulness of predictability as long as humanity is concerned. For instance, Ogugua (2009), faulting the feasibility and relevance of prediction draws a distinction between what he calls prediction in the natural and human science. According to him, prediction in the natural sciences are possible because the subject matters of the discipline are phenomena governed by inexorable laws of nature. In contrast, the human sciences deals with man who is a free and intelligent being. His contention therefore, is that the laws that govern the human sciences, if there is any law at all, are like Heraclitus law of change that can assume any form and pattern and therefore unpredictable.

Similar position was held by Popper both in his *Poverty of Historicism* and *Open Society and its Enemies*. In these books popper made distinction between what he called unbridled social planning and piecemeal social engineering. The former which he associated with historicists like Plato, Hegel and Marx, believe that every reality, including the state and other human institutions has its essence and that once this essence is discovered, the future of that reality can be predicted with absolute certainty. In Popper's contention, such essence does not exist but even if it exists, the human mind does not possess the ability to discover such essence. It was in this context that Popper labelled scholars, especially Hegel and Marx as false prophets on two counts. His reason is that they, particularly Marx claimed that their predictions were scientific and therefore factual, whereas in true, they were claims made based on manipulation of facts. Popper labelled them pseudo-scientists and the field of science developed by them as pseudo-sciences.

In the same vein, Jenkins (cited in Taylor, 2017) argues that we have difficulty enough in understanding the past let alone the future. He maintains that:

...the future is unknowable. The only safe prediction is that every prediction about the future of humanity is almost certain to be wrong (and, to paraphrase Einstein, I'm not sure about the 'almost').

This same view was also expressed in a paper on the societal implications of nanotechnology by Michael Crow and Daniel Sarewitz (2001), in which they argue that the issue of predictability is "irrelevant." The gist of their argument is that in recent times the literary genre of science fiction has continued to promote the tradition of the predictability of human future. In this context, they argue that very often, the future has served as a projection screen for our hopes and fears; or as a stage setting for dramatic entertainment, morality tales, or satire of tendencies in contemporary society; or as a banner for ideological mobilization. It is relatively rare for humanity's future to be taken seriously as a subject matter on which it is important to try to have factually correct beliefs. Consequently:

There is nothing wrong with exploiting the symbolic and literary affordances of an unknown future, just as there is nothing wrong with fantasizing about imaginary countries populated by dragons and wizards. Yet it is important to attempt (as best we can) to distinguish futuristic scenarios put forward for their symbolic significance or entertainment value from speculations that are meant to be evaluated on the basis of literal plausibility (p. 84).

In a nutshell these scholars view attempts to predict the future of humanity as a topic for idle speculation.

Nevertheless, there are scholars who argue that predicting the future of humanity is both feasible and relevant. A typical example of this is Marx's scientific socialism where he claimed that he has scientifically discovered the essence of and evolution of history that will eventually culminate in historical materialism marking the final destruction of capitalism. Marx's claim was that like Darwin discovered the principle of organic evolution, himself has scientifically discovered the principle of the development of society from primitive socialism through master-slave society, the society of the feudal lords and the capitalist society. Therefore, by this principle of historical development, Marx discovered that capitalism contains the fruit of its own destruction and will eventually give way to communism which would instead of the current economic structure of the current capitalist society of "each according to his ability would be operated on the principle of each according to needs" (Cited in Solomonovich & Irmovich, 1977, p. 55).

Another scholar who does not only believe that predicting the future of humanity is feasible and relevant but who goes ahead to make such prediction is John Leslie (1996) a Canadian philosopher. Working under the subject of human future survivability, Leslie puts the probability of humanity failing to survive the next five centuries to 30% in his book *End of the World* is estimate is partly based on the controversial "Doomsday argument" and on his own views about the limitations of this argument. Leslie in this context defends the Cater-Leslie Doomsday argument, which leads to a strong probability shift in favor of "doom" (i.e. human extinction) occurring sooner rather than later. Yet Leslie also believes that the force of the Doomsday argument is weakened by quantum indeterminacy. Both of these beliefs – that the Doomsday argument is sound, and that if it is sound its conclusion would be weakened by quantum indeterminacy – are highly controversial. Similarly, Sir Martin Rees (2003), Britain's Astronomer Royal, is even more pessimistic, putting the odds that humanity will survive the 21st century to no better than 50% in *Our Final Hour*. Richard Posner (2004), an eminent American legal scholar, offers no numerical estimate but rates the risk of extinction "significant" in *Catastrophe*.

Paul Ehrlich's (1968) book *Population Bomb*, and the Club of Rome report *Limits to Growth*, which sold 30 million copies, predicted economic collapse and mass starvation by the eighties or nineties as the results of population growth and resource depletion. Furthermore, Francis Fukuyama (1992) argued in *The End of History and the Last Man* that the endpoint of mankind's ideological evolution has essentially been reached with the end of the Cold War. He further suggested that Western liberal democracy is the final form of human government, and that while

it would take some time for this ideology to become completely universalized, secular free-market democracy will in the long term become more and more prevalent. In his more recent book *Our Post-human Future*, (2002) he adds an important qualification to his earlier thesis, namely that direct technological modification of human nature could undermine the foundations of liberal democracy.

Evaluation and Conclusion

Having looked at the arguments for and against the feasibility and relevance of scientific prediction of human future there is need to evaluate these arguments within the logic of science itself. To begin with every scientific theory operates under the principle of universal causation. Therefore, to a large extent, the feasibility or validity of predicting the future of humanity more or less, relies on the validity of universal causation. If the principle of universal causation is valid philosophical, then the principle of predictability itself will be valid. Before probing into this, the meaning of the principle of universal causation has to be addressed.

According to J. Mbat (2003, p. 8):

The principle of universal causation primarily suggests that everything that happens has a cause or reason behind its occurrence. Conversely, the doctrine postulates the principle of cause and effect where all things taken as effects came about from respective causes and that these causes also came about from certain causes. In effect, it appears that the Principle of Universal Causation regresses indefinitely in terms of causes and effects unless an ultimate cause is established.

Mbat claims that the assumption behind this principle is the belief in the uniformity of nature such that when we declare that an event say C causes E, we mean simply that C is a set of conditions such that whenever they are fulfilled E happens, and whenever E happens, they have all been fulfilled. He goes ahead to insist that all scientific knowledge is based on the Principle of Universal Causation with its attendant belief in the uniformity of nature. This as he sees it is because:

From the knowledge of particular facts which arises from our observations of the nature and structure of the world, science comes to discover the general laws or theories or principles that help it to explain those facts. This method or procedure of arriving at generalization from particular observed facts is informed by universal causation. The whole of what are now referred to as classical physics and Chemistry were based on this principle (p. 6).

In the same token, Robert Audi, (1995, p. 99), explains that the word “cause” is a correlative to effect when one thing “B” is regarded as taking place as a consequence of action of another thing “A”. Then, for him, we can understand that “A” is said to be the cause of “B” and “B” is the effect of “A”. In other words, we can say that – “to be a cause is to produce an effect and to be an effect is to be produced by a cause”. Audi is of the opinion that the principle of universal causation is conceived to prevail between processes of change because as one phenomenon occurs the other necessarily follows. When the latter occurs, the former must have preceded.

Like Mbat, he is also persuaded that underneath the principle of universal causation is the assumption of the uniformity of nature. This is because, for instance, the belief that like causes will always produce like effects and vice-versa, is true if we assume that nature is regular and will always act in the same manner.

While the theory of universal causation is not principally associated with any particular scholar, nonetheless, beginning from the classical period in the long history of western scholarship, the principle has always been defined and applied in variety of ways. Audi traced the origin and application of the principle to the very beginning of human consciousness when according to him, human beings became aware and began to observe the changes in their environment. He captures the issue in a very remarkable passage:

Historically, the problem of causation arose from the time when human beings started inquiring about the problem of change. The common sense always talks of cause and effect, and the whole world is deemed to be operating because of this cause and effect relationship. It is expressed not only by the word 'cause' and its cognates, but many other terms such as 'produce', 'bring about', 'generate', 'effect', 'determine' and countless others. However, the true notion of causation that whatever happens is due to causes, known or unknown has always been regarded as justified (p. 100).

On the whole, Audi, passionately believes that science and human existence itself will not be possible without the assumptions enshrined in the principle of universal causation. This on his account is because these assumptions rightly or wrongly, provide man with satisfactory explanation about the nature of the universe and helps to protect him from the fear and hopelessness that would have been there if the universe and the occurrences within it is completely unknown, unknowable or unexplainable.

The question then is this, is nature uniform? Can human beings predict the future accurately based on past experience? These questions border on the rational justification of prediction and the first scholar who posed this question in its starkest form is the Scottish empiricist David Hume. Hume's (1748/1977, p. 16) empiricism led him to regard the most general problem about knowledge to be how one comes to know anything whatsoever "beyond the present testimony of our four senses, or the record of our memory. Hume pointed out that mere occurrence of one event or sense impression never deductively implies that another will occur. From this he concluded that it must be on the basis of experience that one learns which particular events reliably cause, precede, or are otherwise associated with others. One is thereby able to make predictions about events or states of affairs beyond those immediately perceived.

But how can one possibly justify assuming that regular associations or even causal relationships that have been noted between past events will persist into the future? His claim here is that there is no logical contradiction in supposing that things will change. That the sun will not rise tomorrow Hume notes, is no less intelligible a proposition than that it will rise – indeed the future will almost certainly be quite unlike the past in innumerable particular respects. Hume's conclusion therefore is that the principle of universal causation and predictability by extension

has no basis for philosophical justification. The conclusion when this is applied to the question of predicting the future of humanity would be that human future is not predictable.

Nevertheless, a careful analysis of Hume's criticism shows that he based his conclusion on two tests of validity: synthetic (empirical), analytic (logical). Based on these two tests, predictability is invalid because empirically, we cannot see the future to know whether it will be like the past and, analytically or logically, there is no necessary connection between the past and the future in the argument that the past will be like the future. However, these two are not the only tests of validity both in science and philosophy. There is also probabilistic way of testing validity. In probabilistic validity, although, the premises are logically insufficient to secure the truth of the explicandum, they are said to make the later probable and so proffer probabilistic explanation (Ndianfoo, 2016, p. 12).

What emerges from probabilistic validity is that predictability is a matter of degree, and different aspects of the future are predictable with varying degrees of reliability and precision. Thus, instead of trying to predict the future of humanity in terms of the absolute certainty criticized by Hume, it is a better idea to develop plans that are flexible and to pursue policies that are robust under a wide range of contingencies. In some cases, it also makes sense to adopt a reactive approach that relies on adapting quickly to changing circumstances rather than pursuing any detailed long-term plan or explicit agenda. Yet these coping strategies are only one part of the solution. Another part is since predictability is in degree, to work to improve its accuracy (including the accuracy of conditional predictions of the form "if x is done, y will result").

There might be traps that we are walking towards that we could only avoid falling into by means of foresight. There are also opportunities that we could reach much sooner if we could see them farther in advance. And in a strict sense, prediction is *always* necessary for meaningful decision-making (Bostrom, 2009, p. 86).

As noted earlier, predictability does not necessarily fall off with temporal distance. It may be highly unpredictable where a traveler will be one hour after the start of her journey, yet predictable that after five hours she will be at her destination. The *very* long-term future of humanity may be relatively easy to predict, being a matter amenable to study by the natural sciences, particularly cosmology (physical eschatology). And for there to be a degree of predictability, it is not necessary that it be possible to identify one specific scenario as what will definitely happen. If there is at least some scenario that can be *ruled out*, that is also a degree of predictability. Even short of this, if there is some basis for assigning different probabilities (in the sense of credence, degrees of belief) to different propositions about logically possible future events, or some basis for criticizing some such probability distributions as less rationally defensible or reasonable than others, then again there is a degree of predictability. And this is surely the case with regard to many aspects of the future of humanity. While our knowledge is insufficient to narrow down the space of possibilities to one broadly outlined future for humanity, we do know of many relevant arguments and considerations which in combination impose significant constraints on what a plausible view of the future could look like. The future of humanity need not be a topic on which all assumptions are entirely arbitrary and anything goes. There is a vast gulf between knowing exactly what will happen and having absolutely no clue about what will happen. Our actual epistemic location is some offshore place in that gulf (Bostrom, 2009, p. 90).

Furthermore, on the relevancy of predictability, a lot of emphasis is placed on the importance of learning from experience in science and every field of human endeavor, however, a capacity to learn from experience is not useful for preparing for the future unless we can correctly assume (predict) that the lessons we derive from the past will be applicable to future situations. Close attention to what is going on in the present is likewise futile unless we can assume that what is going on in the present will reveal stable trends or otherwise shed light on what is likely to happen next. It also requires non-trivial prediction to figure out what kind of institution will prove healthy, resilient, and effective in responding or adapting to future changes.

Furthermore, there is need for realistic pictures of what the future might bring in order to make sound decisions. Increasingly, policymakers need realistic pictures not only of personal or local near-term futures, but also of remoter global futures. Because of human expanded technological powers, some human activities now have significant global impacts. The scale of human social organization has also grown, creating new opportunities for coordination and action, and there are many institutions and individuals who either *do* consider, or *claim* to consider, or *ought* to consider, possible long-term global impacts of their actions. Climate change, national and international security, economic development, nuclear waste disposal, biodiversity, natural resource conservation, population policy, and scientific and technological research funding are examples of policy areas that involve long time-horizons. Arguments in these areas often rely on implicit assumptions about the future of humanity. By making these assumptions explicit, and subjecting them to critical analysis, it might be possible to address some of the big challenges for humanity in a more well-considered and thoughtful manner. Thus, while the methodological problems of predictability are certainly very significant, the extreme view that we can or should do away with prediction altogether is misguided.

Conclusion

The astonishing inroads and stupendous achievements in science and technology in recent years, especially in the field of nanotechnology, artificial intelligence and human argumentation have sparked serious debate on the impact of technology on the future of humanity. In this context, many scholars have speculated and postulated on a number of possible futures that awaits humanity in the age of artificial intelligence. Contrarily, there are scholars who are not just against the idea of assigning a particular future to humanity but who antagonists the very idea of prediction itself as both unfeasible and irrelevant. After subjecting the two positions to philosophical interrogation, the study argues that while attempts to accurately predict human future is not feasible because the data needed for such accuracy is not and will not likely be available in the foreseeable future, probabilistic predictions which enable humanity to plan for contingencies is feasible. What this means is that prediction is a matter of degree determined by the amount of information available to the predictor. The study thus, concludes that instead of doing away with predictability, efforts should be channeled towards understanding the contingent nature of predictions and the need to adapt and readapt society to these contingencies because prediction is not just a part and parcel of the human condition but that it is necessary for navigating the unpredictable conditions that humanity finds itself, especially in the age of global warming and artificial intelligence.

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